



Mr. Trevor Phillips, above, is likely to become the first black president of the National Union of Students in March following Miss Sue Shipman's announcement last week that she would not stand for a second term. Mr. Phillips, 24, is a non-aligned socialist and a member of the Broad Left, which usually secures control of the top four NUS posts. It is expected to nominate two Communist Party members, Mr. David Anonovich and Miss Penny Chaper as national secretary and treasurer, and Mr. Alan Christie, a Labour Party member, as deputy president.

Polys redefine power balance

The Committee of Directors of Polytechnics has been working since the summer on detailed proposals for redrawing the balance of power between polytechnic academic boards, governing bodies and local education authorities, it was revealed this week.

The work is being done by a working group of directors under the leadership of Mr. David Beal, director of Leicester Polytechnic. Its recommendations are expected to be published by the summer, when they are certain to play a big part in the public debate on implementing the Oakes report on polytechnic management.

But Mr. Beal said this week that the exercise was not intended as a counter to the Oakes proposals. It had been motivated by what the polytechnics saw as a progressive erosion of their independence following recent decisions by the Department of Education and Science of some polytechnics.

The freedom group intends to analyse the detailed operation of instruments of government in all 30 polytechnics, and issue a set of guiding principles for their revision. It will, however, draft a set of model articles.

Spending falls short of RSG

Local authority spending on polytechnics, colleges and schools this year is not expected to reach the levels allowed for in the Rate Support Grant. Figures released this week in a Government circular have indicated. They show that the RSG settlement was calculated at £5,318.2m and expenditure is only likely to reach £5,230.8m, £87.4m less on current estimates at 1977 prices.

In the 1978-79 financial year £5,261m has been allocated in the RSG settlement for this sector of education, an increase of 2.7 per cent over the actual spending now estimated for authorities in the current year.

The settlement, says the latest circular, will allow a further growth in in-service training and induction programmes for the teaching profession. It will also take account of "some small growth in discretionary award expenditure". Fee income from home and overseas students in 1978-79 will be maintained overall in the public sector but will not increase in real terms.

Approval near for new fund to finance 500 more refugee students by 1980

by Sue Reid

A multi-million pound plan to increase substantially the number of refugee students in Britain is in the final stages of being approved by a Cabinet sub-committee and the Ministry of Overseas Development.

Under the major package, first conceived last year as part of the Government's proposed £120m scheme to aid more students from poorer countries at the expense of those from the wealthy, a general scholarship fund is expected to be set up to finance 500 more refugee students.

Talks between the ODM, the Foreign Office and the Department of Education and Science have been under way for nine months and the Cabinet sub-committee, which has been debating the plan, is now in place to place its proposals before Mr. Judith Hart, Minister of Overseas Development.

She is known to strongly favour the scheme which will be brought into full operation before 1980. It will bring the number of refugee students being financed in Britain by the Government in a new level of more than 1,500. Currently about

1,000 students a year are supported by the ODM through the World University Service's refugee scholarship scheme.

The new plan will not be administered in a country by country basis like the current WUS scheme but will be a general fund. This will allow not only the larger refugee contingents from the Middle East, the Chinese and Ugandans, but other nationalities including Argentinians, Malawians, Chadians, Nigerians, Uruguayans and Indo-Chinese.

Papers outlining the scheme's details were due to be considered finally by Mrs. Judith Hart before Christmas but possible legal complications were still under debate by the Cabinet sub-committee.

Meanwhile the DES has received submissions from other Government departments, including the ODM, about the proposed scheme to finance overseas students through a system of positive discrimination.

A second sub-committee of the Cabinet is still considering the wider-ranging plan which will completely overhaul the present funding system if it is approved.

Although the scheme is highly controversial—it will wipe out all fees for 75 per cent of Britain's

overseas students and inevitably force the remaining wealthy minority to pay initial costs of more than £2,000 a year—Mrs. Shirley Williams, Secretary of State for Education and Science, is still pressing for its introduction despite opposition from the ODM.

The Joint Working Group for Refugees from Chile in Britain has told the Government its English language courses for Chilean refugees in this country have been suspended until funds are forthcoming.

In a letter to Mr. James Callaghan, the Prime Minister, the group has claimed that money for the classes from the Home Office's voluntary services unit was stopped last May. It now faces a mounting deficit and despite appeals for sponsorship in the Home Office, the ODM, the Department of Employment and the DES, it is still without cash help.

The Prime Minister has been asked to make a ruling about the issue. With English language training for Chilean refugees will not be able to find employment and "are destined inevitably to become a permanent charge on the state", claims the group.

Target date is set for new adult strategy

A firm strategy for adult basic education is to be finalised by later than January next year. This is the target date members of the new Advisory Council for Adult Education have set themselves for the presentation of a suggested policy to Mr. Shirley Williams, Secretary of State for Education and Science.

It follows Mrs. Williams's original request to the new advisory council to produce recommendations on the best way of building on the success of the adult literacy campaign to create a coherent strategy for the whole field of adult basic education.

The advisory council, at its second meeting on Tuesday, received a report from a special sub-committee headed by Professor H. A. Jones of Leicester University, on provision of basic adult education.

The council is now to carry out a survey of existing counselling services in adult basic education. It will also be examining student participation in courses in an attempt to learn more about motivation and rates of progress.

Another working group, chaired by Mrs. Naomi Melman of the Open University, reported to the meeting on other priority areas to which the council should turn its attention.

Further investigations are to be made into the availability of counselling services for adults, and the deployment of resources in adult education. A new working group, under the leadership of Mr. Richard Freeman of the National Extension College at Cambridge, will be studying the future content of broadening adult education.

Explained the spokesman: "It is a matter of an adult education, offering opportunities to students who have the financial resources to undertake such studies."

Initially, the university will have to look to the Department of Education and Science to provide mandatory grants for students. Though the DES is aware that the preliminary talks are going on, it has so far taken no part in the discussion.

Even if good progress is made in discussions on the present proposals it is not expected the issue will be put to the OU senate before April at the earliest.

More jobs forecast for graduates this year

A slightly easier year for graduates seeking work was predicted yesterday in an annual analysis of graduate supply and demand carried out by a trio of careers placement organisations.

The three bodies—the Association of Graduate Careers Advisory Services, the Central Services Unit for Careers and Appointments Services and the Standing Conference of Employers of Graduates—believe that in 1978 demand for graduates will be some 20 per cent higher than last year, while only 10 per cent more graduates than in 1977 will be seeking immediate and permanent jobs.

A modest improvement in demand from the public sector is expected to be accompanied by continuing growth in demand from the private sector, and particularly from manufacturing industry.

Second year running is showing an increased demand of about 30 per cent.

Commercial employers—including banks, retailers, insurance and building societies—are expected to recruit between 10 and 15 per cent more graduates. But there are no signs of increasing demand for solicitors, despite continued growth in the number of law graduates coming on to the market.

Some 38,000 first degree and 7,000 higher degree graduates will be competing for these jobs in 1978—10 per cent more than last year. They come from a total output of 69,500 first degree graduates and 18,500 higher degree graduates.

The number of places available is expected to be slightly higher than last year. Places for graduates on teacher training courses, in particular, will show little change, but there is a continuing over-reaction in response of teacher unemployment with a 10 per cent reduction in applications from graduates.

Anomaly held up progress in pay talks

by Judith Judd

A major sticking point in negotiations about university pay during the summer will be the need for an anomaly in the current academic year, the righting of the anomaly.

The Association of University Teachers is pressing for a similar to that given to other academic staff in the summer.

However, Mr. Gordon, minister for higher education, the Commons last week hoped analogies were not drawn between the teachers and the freedom to debate about universities.

He made it clear that the anomaly was a difficult one for the Government to accept but that it was in a position to be at stake.

A means of quantifying the anomaly, which has been the subject of much dispute about the last year, is the subject of the latest plan, which will overturn a significant

ILEA overseas penalty £50,000

by Sue Reid

Two London polytechnics are to have their block grant cut by £50,000 each following their refusal to reduce overseas student numbers in the current academic year, the Inner London Education Authority ruled this week.

The Central London Polytechnic has increased its enrolments by 15.1 and Thames Polytechnic by 7.1 despite an earlier ILEA decision that overseas numbers should be frozen in the colleges it funds at the 1976-77 level.

The ruling, by the higher and further education sub-committee, follows ILEA's decision to introduce a controversial new quota system to reduce overseas numbers in each of the polytechnics and colleges in 25 per cent of total numbers by 1981.

Under the latest plan, which will overturn a significant

more radical scheme to cut foreign numbers to 10 per cent of the 1981 overall student total, colleges will also be told to freeze the proportion of overseas students on any individual full time or sandwich course at one third.

But the new scheme will still have significant implications for some colleges. A report on the quota approved this week, states: "The combination of a one third ceiling on each course together with the college limit will produce a significant reduction in the 1976-77 level or the current year's level which ever is the lowest."

Those colleges with more than 25 per cent from overseas in the current year will be forced to cut back foreign admissions by one quarter of this year's excess. Such arrangements will have to gain Department of Education and Science approval.

Following pressure from the polytechnics, overseas students enrolled on courses specifically designed for them will be exempt from quotas and the same ruling will apply for foreigners attending

in the colleges will be reduced drastically. A phased-in cutback will start next September when the colleges, with up to 25 per cent of their full-time and sandwich students from overseas will be instructed to reduce their intakes to the 1976-77 level or the current year's level which ever is the lowest.

These colleges with more than 25 per cent from overseas in the current year will be forced to cut back foreign admissions by one quarter of this year's excess. Such arrangements will have to gain Department of Education and Science approval.

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continued on back page

UGC new head an academic by accident

by Judith Judd

Dr. Edward Parkes, whose appointment as the next chairman of the University Grants Committee was announced this week, became an academic by accident.

Dr. Parkes, 51, the vice-chancellor of City University, spent three years in the aircraft industry after leaving Cambridge. He returned to the university with the intention of solving the problem of a series of mysterious plane crashes and then going back into industry. He solved the problem but stayed in Cambridge where he became professor of mechanics.

At City University where he has been since 1971 he is known as a liberal and a democrat.

He expects the universities' financial difficulties in the next five or six years to be acute, though the UGC will still have to fight hard to win money from the Government.

Two problems especially concern him. The first is the need to recruit young staff, particularly in the sciences. He believes that during the 14 per cent expansion of universities in 1981 universities will have to be persuaded to take on more staff in the sciences as well as in the hard-pressed arts departments.

The second is the need to replace the scientific equipment in universities which is becoming obsolete.

He believes a longer term challenge for the universities is the attraction of mature students who will use their facilities when the numbers in the 18 to 20 age group fall in the next decade.

He takes over from Professor Sir Frederick Dainton, the present UGC chairman, in October.

Commons debate

Dr. Parkes—liberal and democrat

Dr. Parkes—liberal and democrat

Dr. Parkes—liberal and democrat

Final Oakes draft foresees need for new law on pooling

by Judith Judd

Final legislation will be needed to authorise the new system of funding higher education proposed by the Oakes Committee, according to the committee's final unpublished report which was considered this week.

Just one of the report's 12 chapters deals with the legal problems which must be surmounted if the committee's recommendations are to be put into effect. It says it is unlikely that consultations on the recommendations could be completed in time for legislation in this parliament.

However, it recommends that nine regional advisory committees to coordinate planning in the various regions should be set up "as a matter of urgency". On the proposal for a powerful new national body to control and finance higher education it says: "The Government should consider whether this should be established on a shadow basis to undertake preparatory work."

The legal difficulties arise over the suggested modified system of pooling under which the national committee would be responsible for the cost of public sector higher education while the local authorities paid the remaining 15 per cent.

The report speaks of "evolution rather than revolution" and makes it clear that its contents have been voluntarily accepted by the local authorities. The committee says it has favoured the evolution of the present pooling system rather than a direct grant from the exchequer "because of local authority pressure".

It describes the new system as "one in which the major part of the cost would be pooled and met from a fixed annual sum determined nationally. It would be

allocated between individual authorities, or institutions, by the national body. A minor part would be met direct by the local authority itself."

As expected, the report recommends the establishment of a national body to be called the maintained higher education committee. Its job should be to "advise the secretary of state on the total share to be devoted to higher education capital expenditure and on how the agreed provision should be allocated to individual institutions."

It should also advise on the provision of total recurrent expenditure. The report suggests it might advise the Government on plans for direct grant and voluntary colleges and their financial support.

The new body should have between 25 and 30 members, eight from English universities, one from Wales, if Wales is included in its remit, three from the National Association of Teachers in Further and Higher Education, two from the Committee of Directors of Polytechnics and three from polytechnics and colleges nominated by the secretary of state after consulting the institutions. There will be between eight and 10 representatives of universities, schools and industry, as determined by the secretary of state.

The 15 per cent finance target which authorities will eventually have to contribute will be reached over some years. In the first they should pay 5 per cent. At this week's meeting discussion centred on how to adjust the rate support grant in some authorities.

On the regional advisory committees the report says they should at first be established using the boundaries of the present regional advisory councils.

Any discussion about licensing fees would need to take this into account. They would also need to look at the balance between book and periodical copying. One university has provided figures showing that more than twice as much copying is from periodicals as from books.

The submission expresses alarm about the cost of the proposed blanket licensing system. In current economic circumstances the prospect of the universities having to pay an annual licence fee of 20 per cent of the subscription rates of all periodicals regularly obtained is inconceivable.

It also challenges the Whitford report's assumption that widespread copying means smaller circulation which leads to higher costs and more photocopying and warns that the future of some scholarly journals could be threatened if libraries decide to raise licence fees by cutting back on periodicals.

American problems, 5

Copyright law change 'threat to scholarship'

by Judith Judd

The university vice-chancellors have told the Government that proposals to change the law on copyright are a threat to scholarship. In a submission to the Department of Trade on the Whitford Report on copyright the Committee of Vice-Chancellors and Principals says that it agrees that copyright law should be simplified but fears that Whitford's plans will create considerable difficulties for universities.

In particular, the committee attacks the report's proposal to remove the present freedom to make simple copies of educational material and to replace it by a licensing system. The removal of this freedom "would be generally inimical to the free communication and exchange of information and ideas on which scholarship rests".

It notes that the American Copyright Revision Act due to come into effect in January, 1978, will incorporate precisely the kind of limitation in relation to copying for "fair use" and research which the Whitford Committee seeks to end.

It also says that since most requests received by the British Library Lending Division are for copyright material produced in America, acceptance of the Whitford proposals would offer more protection to American authors in Britain than vice versa.

Though it recognises that problems have arisen over multiple copying and that the interests of the copyright holder need safeguarding the committee believes there should be exemptions if a system of licensing is introduced.

The vice-chancellors suspect that the Whitford Committee overlooked the fact that much photocopying in universities is of material which is out of copyright.

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American problems, 5

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Gertrud Lenzer discusses Comte's positive theory of society and its implications for our own times, 15

Stan Cohen, on Michel Foucault's *Discipline and Punish*, is among the reviewers of new sociology books, 17-20

Legal education

In 1980 there will be twice as many law students as expected. Judith Judd reports on the state of legal education, 9

Donnish detachment

Laurie Taylor reviews a new book on the folklore of academic politics that takes too detached a line for his liking, 16

TEC and BEC

In "Briefing" Patricia Santinelli describes the new arrangements for technician and business education, 11

Letters: right and left

Six academics ask whether there is a less political alternative to the AUT; and Anthony Arblaster of the CAFD replies to Julius Gould, 14

Trevor Phillips

An interview with the NUS national secretary who is likely to become the union's first black president, 10

Nursing American news

5

Overseas news 6

Don's Diary 7

Noticeboard 8

Letters 11

Books 16-20

Classified Index 21

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Post Office takes over axed training college

A Warwickshire college of education, victim of an early round of the Government's reduction in teacher training numbers, is to become a management college for Post Office telecommunications staff.

Details of the sale are currently being finalized and the Post Office hopes to take possession of St Paul's College at Newbold Revel, near Rugby, during the summer. The purchase price and alterations to the existing buildings will lead to a bill of around £2.5 million.

The acquisition of the college will enable the training of telecommunications middle management staff—currently conducted in London and several provincial centres—to be centralized.

About 8,000 students a year will pass through the college's doors for courses on general management and on various specialisms relevant to the business. The college, which has residential accommodation for 230 students, has an estate of 324 acres—250 acres of which consists of a rented farm—which was mentioned in the Domesday book.

The estate includes a lake, woodland and pleasure grounds as well as sports facilities and a physical education centre.

St Paul's, one of the country's oldest and largest colleges, was founded in 1862 by the Rev. John St Paul. Among the college buildings is a mansion built early in the eighteenth century in the Queen Anne style, and listed as a building of historic and architectural interest.

The estate came into the possession of the Revell family in 1166 and later was acquired by the Malorys, including Sir Thomas Malory, author of *Morte d'Arthur*. The Yorkshire family of Skipton took over the estate in the seventeenth century.

Advanced trade union studies incorporated at Ruskin

Four-week courses in advanced trade union studies have now been incorporated in the curriculum of Ruskin College, Oxford.

Since October, 1977, the College has been providing the courses on a regular basis although its main programme continues to be in the form of two-year diploma courses for students sponsored by trade unions.

The advanced studies course is intended to provide a study of the current political and economic context in which trade unionists operate, catering primarily for senior stewards or convenors and members of union committees.

'The idea is that trade unionists go through the normal TUC educational programme, which is arranged all over the country with the cooperation of local education authorities and WEAs. These courses are intended to go on from there and give the economic and political background to trade unionism rather than a training in working within the movement,' said Mr Billy Hughes, principal of Ruskin College, this week commenting on the college's latest report.

The report for Ruskin College for the year ending July 1977 notes that the college has become increasingly dependent on the regular receipt of income from fees and other sources because the proportion of direct grant from the Department of Education and Science has decreased in relation to total income.

Many of the 175 students who attended the college last year, with an average age of 30 years, received grants from trade organizations.

'We really need to try to get across the concept of continuing education because at the moment only specialists know what it means. We need to decide whether priority should be given to mature students who have reached a stage in their lives when they know they want to get a proper education or whether it should continue to be given to adolescents.'

It is not too early to begin thinking about the effect of a declining population on the planning of future and higher education needs, Mr Dudley Fiske, Manchester's chief education officer, gave this warning in his presidential address due to be given to the annual general meeting of the Society of Education Officers yesterday.

'We know that the number of 18-year-olds will reach a peak of 925,000 in 1982; seven years later it will be 783,000; by 1992 the figure will be 647,000,' he said.

'We yet have time to at least identify and anticipate the questions that are raised by those figures for the future of universities, polytechnics and colleges of higher education, say nothing of the prospects of better provision for mature students and adult education. It is not too soon to begin to think about this.'

Oxford is top of research grant table

Oxford, Cambridge and Sussex—the universities which obtain the highest proportion of their research grants from the Government—were in 1974-75, according to figures released by the University Grants Committee.

The percentage of Oxford's income from research grants was 21 per cent. The figure for Cambridge and Sussex was 20 per cent.

In Scotland Edinburgh topped a list with 14 per cent of its income coming from research grants, followed by Glasgow with 12 per cent.

The full figures for the English universities are as follows:

University	Amount	% of total
Oxford	4,843,512	21
Cambridge	4,022,755	20
Sussex	1,536,449	20
Birmingham	2,882,089	18
Southampton	1,899,500	18
London	1,737,871	17
Newcastle	1,727,262	17
Nottingham	1,572,887	16
Essex	476,826	16
York	539,107	16
Leeds	1,594,558	15
Liverpool	744,024	15
Warwick	648,249	15
Manchester	2,175,515	14
Sheffield	1,287,661	14
Bristol	933,571	14
Liverpool	1,439,463	13
UMIST	744,162	13
Surry	528,045	13
Brunel	396,167	13
Bartlett	488,526	13
Kent	340,935	13
Bath	318,819	13
East Anglia	410,375	13
Lancaster	357,454	13
Aston	456,574	13
Bradford	409,658	13
Exeter	373,607	13
Salford	472,100	13
City	207,772	13
Hull	307,814	13
Keele	139,735	13

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Coventry merger plan approved

Mrs Williams, Secretary of the Department of Education and Science, has finally approved plans to merge Coventry College of Education with the University of Warwick.

Her decision brings to an end a long period of uncertainty which has seen plans for the continued independence and expansion of the college being replaced by proposals first for a merger with the university, then with Lanchester Polytechnic, and finally with the university again.

A letter formally approving the merger from April 1, 1978, has been sent to all the interested parties including the local education authority.

Manchester chaplains hope to raise £10,000

The chaplains of higher education in Manchester have launched an appeal to support their work. The nine chaplains from all denominations are hoping to raise £10,000 a year to provide welfare and counselling services for students. A public money is used by the chaplains. The appeal will be aimed primarily at staff and ex-students.

The main theme of Mr Fiske's address was an exploration of the way in which the work of child education officer has changed during the past two decades. Among the forces that have altered the content of their work, he cited the growth of party politics in local government, reorganisation, growing student pressures, a swelling body of legislation and general contraction of the education service.

CEI seeks power over degrees

by Sue Reid

The Council for Engineering in Institutions has called for full powers to vet university and polytechnic engineering degrees. In a confidential submission to the government's committee of inquiry into the engineering profession.

The council, the watchdog of engineering standards, has told the committee, chaired by Sir Monty Finlayson, that although the entry requirements for engineering degree courses should be the responsibility of individual institutions, the standards should be controlled by the CEI.

In evidence submitted to provide an overview of the engineering profession, the CEI said: 'The degrees awarded, if intended to give exemption from the CEI's examination, should be accredited by the CEI after the degree courses have been assessed by the appropriate member institutions. Accredited institutions should be reviewed at not more than five-year intervals.'

All chartered engineers needed to study mathematics, physics and chemistry to CEI ordinary level and to at least A level in two out of the three subjects.

Before embarking on an engineering degree programme students should attain a knowledge of science and mathematics, although the level would differ from course to course and depend on the specialisation within the engineering field to which the student aspired.

The evidence goes on: 'As is already the case in both medicine and architecture practical training should be integrated with degree courses, whether conventional three-year degree courses or sandwich courses. Four-year degree or part-time courses... The total period of instruction should not be less than five years, of which at least 48 months should be spent on practical training away from the academic institution.'

Proper monitoring of practical training, already practised by some member institutions of the CEI, should be a requirement of all future engineers. It would, claims the council, help students if they became industry-based not later than the third year of their formal education and training.

If practical training was to be properly carried out it would place additional costs both on the universities and polytechnics and some financial provision through the Department of Education and Science should be made for this.

In addition students should be considered to be in status *paripassu* through the whole period of their education and training and cannot be expected to command as high a wage as those not undergoing training,' says the evidence. Many aspiring engineers were not currently fulfilling the training requirements for this reason and some inducement in the form of 'topping up' training grants should be made available.

In general the academic level to which technicians engineers and technicians had to be educated would be lower than for chartered engineers but the amount of practical training would be higher.

Graduating 'only a stage' in lifelong learning

by Lane Fenniman

Further training after graduation is an essential part of education today, the vice-chancellor of London University said this week. In an address due to be given at the pre-graduation day ceremony at the Royal Albert Hall yesterday, Sir Frank Hardley said that the value of a degree from London University had been fully demonstrated by the range of employment secured by its graduates.

He said that the well-being of Britain depended on the wealth created by manufacturing and service industries and the implementation of social policies for the betterment of the life of its people was impossible without a sound economy.

'Everyone has a stake in the success of industry and all of us must share the blame for the current misunderstandings about the lack of interest shown by so many young people in using their talents to help shape the future of this country,' he said.

It is through postgraduate study that we gain a deeper understanding of scholarship and by research that we add to knowledge and understanding for the benefit of all. All our masters and doctors are emphasizing by their work that we can individually and collectively do much to improve the quality of life. Enhancement of material well-being is important for us collectively, for the individual.

The evidence points out that in the near future between 600 and 800 chartered engineering graduates a year will be required by industry. This requirement, says the CEI, could be increased with advantages to industry by a wider use of chemical engineers, especially in smaller companies, process industries, government and administration.

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Local communities to have more say at adult institutes

by Patricia Santinelli

The governing bodies of London's adult education institutes are to be more widely representative of their local communities following a decision expected to be taken by the Inner London Education Authority's education committee this week.

Wider representation will become possible through amendments to the instrument and articles of the governing bodies of institutes. These were approved last July but put up for amendment after consultations indicated that the new governing structure would fail to be fully representative of local communities.

Now each institute will have to consult its borough council on the organisation and bodies appointing governing representatives of local interests. In addition each council will be able to appoint one governor directly.

Discussing the committee's decision, Mr Peter Glynn, ILEA's assistant education officer for community education and careers, said that they were seeking the views of the borough councils as in which type of voluntary organisations represented a strong voice in the community.

The committee is also at present exploring with adults the representation on the institutes' governing bodies of non-teaching staff such as media and clerical officers and catering staff.

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The first exhibition in the new Unicover Gallery of the Crowfoot Centre for the Arts at St Andrews University starts tomorrow and is a major showing of the work of Russian artist, Leonid Piskunov. Born in 1862, Piskunov was a friend of Tolstoy and first illustrator of his work. This print shows a fragment of a large-scale family portrait called 'Congratulating on the Silver Wedding Anniversary' which Piskunov painted in 1914.

'Keep off the bandwagons'

A warning against jumping on bandwagons in community education was issued this week by Mr Arthur Stock, director of the National Institute of Adult Education, in an address to a conference on adult advisory services in Lancashire.

Urging a cautious approach to the creation of advisory services, Mr Stock told his audience at Cowthorpe Hall, near Burnley: 'There has been a tendency in adult education—and there may well be in continuing education—to leap on to bandwagons without knowing what we are doing.'

'Community exponents do not always think through what is meant by "community".'

Mr Stock was speaking at a workshop organized by Nelson and Colne College and the Institute for Research and Development in post-compulsory education at Lancaster University, in conjunction with NIAE and the Open University. He went on to define the various aspects concerned in offering an advisory and guidance service.

Outlining trends in adult continuing education, Mr Stock said there would be a growth of guidance and advisory services, not merely on a parochial level, but in an almost worldwide sense.

Miss Dorothy Engelson spoke of the success of the educational guidance service for adults in Belfast. Success hinged on three vital factors—the organization was important, detached, and outside the existing system, she said. The service in Belfast has been functioning for 11 years.

Mr Jack Adams, principal of Lancaster College of Adult Education, referred to the suggestion in the Plowden report of creating 'education shops' for parents of primary school children. He said the idea could be extended to adult education and also stressed the importance of creating the right impression of the advisory and guidance service from the beginning.

Physics rises to third in popularity

by Judith Judd

Many more children took A levels in physics, chemistry and biology in 1976-77, according to the annual report of the Joint Matriculation Board out today.

Though the board says it would be premature to suggest that there has been a swing back to science, physics, chemistry, history and geography in become the third most popular subject.

Science sees through the Northern Lights

by Simon Willmet

British space research has unravelled some of the scientific mysteries of the Aurora Borealis in the Northern Lights, during the past three years. This is one of the highlights of the work of the Scientific Research Council's Appleton Laboratory during 1978-79.

In his annual report on the Laboratory's activities the former director, Dr John Saxton, says: "The nature of the processes that combine to produce the phenomenon of the aurora has been clarified considerably following measurements of charged particles made principally from Skylark rockets launched from Norway."

In the 1976 campaign the three-stage Skylark rocket was used for the first time, taking scientific payloads to 700 km at the same time as measurements were made by smaller rockets at lower heights. The rockets carried many experiments built by university and Appleton Laboratory scientists.

Upper atmosphere winds in the aurora were also measured using sodium clouds released from balloons provided by University College London on rockets, and tracked from the ground with the Appleton Laboratory laser radar (lidar). During the three years the laboratory, whose functions include measuring various space science projects as well as designing and operating the data-handling systems that bring to the scientists the information obtained by their experiments, has greatly expanded its

activities in running Britain's scientific space programme based on the use of earth satellites, rockets and balloons.

Another key feature of the Laboratory's programme, which includes basic research in astronomy, the science of the earth's atmosphere and applied research in radio propagation, is the measurement of atomic oxygen in the lower ionosphere.

In conjunction with the University College of Wales (Aberystwyth) Appleton Laboratory scientists have devised a spectroscopic technique using rocket-borne ultraviolet lamps for measuring purposes.

The information gained from several rocket flights has made possible important advances in upper atmosphere science.

The Ariel V satellite launched from Kenya in 1974 and still working well has enabled scientists from British universities to keep in the forefront of X-ray astronomy.

The Ariel V Control Centre at the Laboratory commands the satellite and distributes the received data to the university scientists whose experiments are on board the satellite.

The Laboratory's astrophysical research division at Culham has used data from rockets and satellites to study the sun's corona and has developed a theory of how the recently discovered "holes" (lower temperature regions) in the corona are linked to the outflowing stream of particles known as the "solar



Professor Adam Neville has been appointed next principal and vice-chancellor of Dundee University. He will succeed Professor James Brewer, who is retiring this September.

Professor Neville has been professor and head of the department of civil engineering at Leeds University since 1968. He is a graduate of London University. After lecturing at Manchester University he was appointed professor of civil engineering and dean of the faculty of engineering in University College, London, Nigeria.

In 1962 he went to Canada as professor of concrete technology in the University of Saskatchewan and later as dean of the faculty of engineering in the University of Calgary.

Polytechnics' progress 'excellent'

The polytechnics in their relatively short existence have made excellent progress in establishing themselves as comprehensive academic institutions, Mrs Williams, Secretary of State for Education and Science, said in the Commons last week.

She expected them to make the major contribution towards the expansion of about 30 per cent envisaged for higher education rather than teacher training in the non-university sector by 1981-82.

Mr Bruce Givcott (Leicester and Tamworth, Lab) complained that polytechnics were concentrating on full-time courses to the exclusion of part-time and day release students.

However, Mrs Williams pointed out that part-time courses increased in the polytechnics by 41 per cent between 1971 and 1976 although they had not increased proportionately largely because of the rapid expansion of sandwich courses which much of the House thought a good form of higher education.

Mr Oakes told the Commons this week he expected the first scholarship scheme for students on engineering courses to be awarded for the academic year 1978-79. Details of the scheme would be worked out by a small committee which Mrs Williams was setting up.

Social science suffers academic drift

The drift of academic staff away from universities is already evident in some disciplines and may increase, Professor L. C. H. Goss, vice-chancellor of Southampton University, says in his annual report.

He cites the example of the university's faculty of social science. In his report Professor Goss, who is the faculty's dean, mentions the loss of a leading academic in Hulland.

"This is yet another reminder that British universities are not sufficiently competitive in the international market and that this applies as much to the social sciences as in other fields."

"There is little that the university alone can do to make the British university system more attractive but relative to other universities the apparently poor provision prospects in social science make this university unattractive to many junior members of staff."

Professor Hilton says that some of the staff has already led to a change in the pattern of teaching in some departments.

They are moving towards a North American model with large formal lectures and little direct student contact.

Age factor 'a threat to research'

by Judith Judd

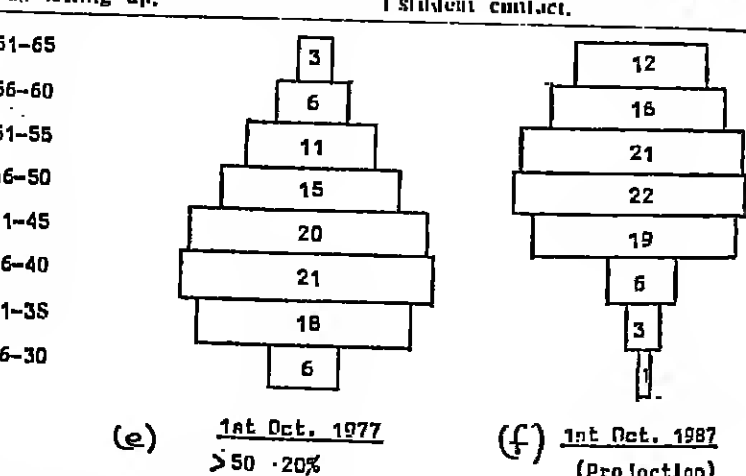
The average age of academic staff is rising steadily with possibly disastrous effects on research, Professor R. N. Haszeldine, principal of the University of Manchester Institute of Science and Technology, warned last week.

In a speech to the university's staff Professor Haszeldine said that 20 per cent of UMIST's staff were more than 50 and 55 per cent more than 40. There were not many in the 61-65 age bracket.

If recruitment continued at the present ridiculously low level the possibility that 50 per cent of the staff would be over 50 in 10 years' time, including disastrous effects on UMIST's research activity.

"The recruitment of new young lecturers is a matter of top priority as soon as we can afford to employ them. It is truly tragic that young gifted people have been and continue to be denied the opportunity of entering the academic profession."

He said the area most severely under threat in universities was research. The new postgraduate fees



UMIST's age breakdown.

had seriously interfered with postgraduate education.

The new high fees combined with the high cost of materials and equipment for research meant fewer industrial grants were available, although UMIST still did relatively well.

A fall-off in quality of British university work would affect future generations of scientists and technologists and through them the well-being of the country.

There is still time to devise a fee structure which does not act to the disadvantage of both student and university by making it difficult or impossible for industry, particularly medium-sized industry, to invest in the wealth of talent, creativity and innovation and experience that can be found in a university like UMIST.

Another threat to research was excessive attention to relevance. A technological university needed to carry out long-range as well as short-range research of quality.

He said that the institute might well have a deficit of £155,000 in mid-1978, but it should be solvent by mid-1979.

Charity plea on overseas fees

by Sue Reil

The present fee charges facing overseas students in Britain discriminate against the poorest, the Department of Education and Science has been warned in a special submission by six charities.

The Group of Six—made up of the Child Poverty Action Group, Help the Aged, Action Shelter, War on Want and the United Nations Association—has claimed that not only do these differential fees discriminate between home and overseas students but between those students from rich and poor foreign nations studying in Britain.

It is, they allege, a type of discrimination disapproved of by the education world and for which there is little parallel in Europe.

In evidence to the DES the Group of Six says: "Since many of the overseas students that come to this country are from poorer countries we are discriminating against them in particular as we put our fees on them. It is a situation which will worsen as time goes on unless the policy is reversed."

They advocate an immediate policy change so that overseas students' fees are set at different rates for those from richer backgrounds—a situation caused either through private or government sponsorship—while poorer students pay only the basic course rate.

"This would bring overseas students into line with home students, who are wholly subsidized by the state and others—the more wealthy—have paid their fees well by their families."

The Group of Six maintains that the admission of students should be based on educational and not on immigration grounds. The present immigration laws operated against the poorest privately financed students because they failed to persuade immigration officials that they could afford the fees. Commonwealth students could not be deported after five years in Britain and therefore their application to study here was viewed as a means of obtaining residence.

A claim that the courses taken by overseas students bear little relevance to the needs of their native countries is also made in the submission, entitled The Future of Overseas Students in Britain. This, says the group, is particularly true of some courses run by private colleges and advertised in newspapers abroad.

They call for changes so that courses offer skills and qualifications relevant to developing countries.

The Future of Overseas Students. Available from Macklin Street, London, WC2, price 50p.

News in brief

Dr Eileen Byrne, Education Officer of the Equal Opportunities Commission, is to keep her job after a decision in her favour by a panel of three commissioners appointed to hear her appeal against unfair dismissal.

GEC men give lecture

The 1977-78 Faraday Lecture, which aims to interest people from outside the profession in the work of electrical engineers, will be given at Savoy Place, London, on January 31 and February 1, 2 and 3. Organized by the Institution of Electrical Engineers, this year's lecture on light sources and their uses will be presented by Mr Robert Clayton, technical director of the General Electric Company Limited, Mc Howard Lott, managing director of GEC Electronics Devices Company and Dr Stephen Chubb, head of the Optical Communications Department, GEC Hirst Research Centre.

Surrey appoints fellow

Mr Peter Prince, the Open University's regional director in the South East, has been appointed an honorary visiting fellow by Surrey University.

North American news

Librarians puzzled by limits of new Copyright Act

from our own correspondent

WASHINGTON

A comprehensive new Copyright Act has come into effect in the United States this month. It replaces the legislation of 1909, now hopelessly outdated after 70 years of technological change.

Although the old law was generally agreed to be inadequate, its replacement by the new Copyright Act, passed in 1976 after 12 years' argument, has brought new confusion to the American academic community—and left academic librarians worried about what is allowable.

The trouble with the Act is its general imprecision and its many grey areas that probably will be clarified only after years of court rulings.

For example, although the Act puts out to the public a book for the first time, the definition of "first time" is left to the courts. It is a task to define this phrase exactly. Generally, the doctrine allows copying without permission or payment for "purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship or research."

To make life easier for school and university teachers, representatives of educational organizations, led by Mr Sheldon Steinback of the American Council on Education, agreed with the Authors' League of America and the Association of American Publishers a set of "minimum guidelines" for educational use of copyrighted material.

According to the guidelines, teachers may make single copies for research or instruction of one chapter from a book, one article from a periodical, one short story or poem or a single illustration.

Multiple copying for discussion or classroom use is allowed if it meets tests of "brevity, spontaneity and cumulative use." The library limit is on less than 250 words of poetry and 1,000 words of prose.

Multiple copying is limited to nine occasions a term for any one course.

Unfortunately, by devoting all their attention to the private sector, the educationists failed to notice the implications of the section of the new Act that deals with music copyright.

Last autumn, when they did realize their "inadvertent error," as Mr D. P. Fine, executive director of the National Association of College and University Business Officers (NACUBO) called it, the educational organizations rapidly

Budget boosts science research funds

from our own correspondent

WASHINGTON

The President's budget for the United States government, spending on basic research has fallen for the first time in 10 years. The fiscal year 1979, presented to Congress this week, proposes a big increase in federal funds for experimental science.

The President wants federal agencies to spend \$10 billion supporting basic research next year—up 10 per cent on 1978 levels in real terms, on the 1972 level.

At the President's science adviser, Dr Frank Press, said: "Academic researchers will benefit significantly from this growth." About half of the United States government's spending on basic research goes to university departments.

In Press said the extra funds were "intended to encourage innovative research and to assist in ameliorating some of the problems currently associated with the performance of research in colleges and universities, such as the growing shortage of equipment and the lack of opportunities for young investigators."

At a science budget press briefing, he declined to discuss how many new posts for academic scientists might be created, but he hoped that, as well as directly creating new research jobs, the money would have the indirect effect of encouraging universities to establish more academic posts for young scientists.

The federal government's total spending on research and development in higher education in the fiscal year 1979 (which starts in October, 1978) will be \$3,500m, up 7.3 per cent. About 40 per cent of this sum represents applied research, mainly medical, whose funding shows no real growth.

The budget emphasizes one particular research initiative for 1979: a 40 per cent increase in support

MIT opens \$10m engineering appeal

Massachusetts Institute of Technology

MIT is launching a \$10m appeal to pay for "an urgently needed curriculum renewal effort," 30 or 40 new teaching appointments and new research projects in its School of Engineering.

The funds will enable engineering, the largest of MIT's five schools, "to maintain a position of international leadership in the engineering world," the institute says.

The attractiveness of its programmes to students is causing problems for the school, according to MIT. Undergraduate enrolment is climbing from 1,800 in 1976/77 to an expected 2,200 in 1978/79, and there are 1,950 graduate students. The volume of research is growing, too.

The academic staff, which has remained constant at 340 for a decade, is therefore having to cope with an excessive workload. Laboratories are overcrowded and in need of renovation and re-equipment.

The three best medical schools in the United States are those of Harvard, Johns Hopkins and Stanford universities, according to a survey of 2,049 medical teachers. The study was conducted by the Columbia University sociologists and funded by the National Science Foundation.

Professor Astin said two-year community colleges provided important services in the fields of part-time, adult and technical education but "for a vast number of 18 and 19-year-olds they provide the illusion of opportunity and very little more than an illusion."

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Are we slaves of the system?

Adorno—one of the most provocative of the Frankfurt School of Sociology—certainly thought so.

But in New Society's series, 'The founding fathers of social science', David Held shows that Adorno was no pessimist. Or not entirely.

NEWSOCIETY

OUT TODAY 25p

Medical top three

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Broadening the NUS image

Profile of Trevor Phillips, tipped as the next president

Trevor Phillips, the last tip to become the first black president of the National Union of Students, has been closely identified with his new approach to the union's style and its role in the search for clearer objectives in dealing with the Government.

Although he has not announced his candidature yet, it is widely expected that he will be elected at the union's Easter conference in March. Sir Shimon Abu has announced she is not standing again.

Born in Islington, Mr Phillips received most of his secondary schooling in Guyana, before coming back to London to take a chemistry degree at Imperial College. Unlike many students, he finished his degree before he went for a sub-bachelor's post. "It is quite a tradition among West Indians," he explains, "that before you start doing anything at all, you have to get your paper in your hand and at least have something you can rely on. That was very strongly drilled into us as children."

Not being a political full-throated, though, didn't stop him from becoming involved in setting up a society to represent school students interests when he was at secondary school in Georgetown.

Over the last year, the NUS has been re-emphasising its public image. A few years ago, organization of students and militancy were becoming objects in themselves rather than means to an end. Phillips says.

"What we are trying to do now is to develop a much more effective concept of our relationship to Government and to other national organizations, particularly youth organizations, in the sense that we want to set objectives which are clearly realizable within our own positions and also to strike all-round unions that can help us to win those objectives, particularly with Government."

While these changes are all part

of a single process designed to make the union more effective, Mr Phillips says that they were not part of a grand plan but something that simply developed in practice.

This may well be true, but could it also be a response by the rising Black Left alliance—of which he is a member—in the growing strength of right-wing groups? In fairly non-committal fashion, Mr Phillips tends to agree. "The reason Conservatives were able to make progress," he says, "was simply because many students unions were really slams of unions, in a sense. To a large extent he thinks they were being used as tools of the union leadership. I think it's fair to say that students were fed up, so they reacted and voted for what they saw as a change in the union's leadership. In the new regime, Mr Phillips doesn't mind criticizing one or two old sacred cows of the Broad Left. Until recently, that organization was firmly committed to the idea that general meetings should be sovereign in deciding the policy of the union. But, Mr Phillips believes, "the reliance, totally, on the general meeting system in many cases means that a lot of students don't have any choice through opinions, because not too many can get up the courage to speak. One of the things I am hoping will be years in the next couple of years is to create a more abundant, in a sense, of general sovereignty of that kind of decision-making, new forums and new channels for students to be involved in their unions."

Personally, one of the union's main campaigns is on the student grant system, described by Mr Phillips as "so byzantine that there is a whole army of people who suffer because of the complexities of it."

The union's biggest success over the past couple of years has been the abolition of married women's grants and the extension of man-



Trevor Phillips: say about his candidature.

tion awards to HND and OND courses. But now Mr Phillips feels that union must concentrate on disciplinary means and the abolition of the means test.

On tuition fees, he was relieved that the level of the fee had not gone up as much as it might, but unhappy with the lack of Government action to review or change the structure. "My own feeling is that we've got to work on change in the way we do things, and that this is generally on the fee structure, how can we move forward, and secondly, how we can deal with the problem of overseas students, particularly those from the Third World countries, which won't be solved simply by abolishing fees."

The overseas students question is close to his heart. Grants can play a part, which no one has really addressed themselves to is that if you have a system of open access for everybody, it will always be easier for students to find Europe and

North America to come to Britain, and in that sense the students from the third world countries will be squeezed out."

So he intends to bring in favour of a degree of positive discrimination that provides third world students. In his educational policy, the NUS has long called for a "comprehensive system of post-school education."

"What is that, exactly?" "One of the great things of the last year," says Mr Phillips, is that we've begun to examine a lot of the slogans we've thrown out over the last four or five years, and put some meat on them."

He explains comprehensive post-school education as length, identifying the key concept as "diversity." The intention is to "provide opportunities for all people who have some level of either vocational training or personal development courses through the part-time route as well as through the full-time route."

The "planned diversity" would be achieved by a National Council for Further and Higher Education, which would include the universities in its planning. Compulsory day release and, of course, changes in the grants system, are among other proposals to achieve the objective.

This comprehensive system would involve increased Government spending across the board, not just on excellence in higher education, though Phillips is quick to point out he is not against the role that universities can play.

The NUS is paying a great deal of attention to adult education in general. Trevor Phillips explains that the expanding sector of the union's membership is in the field of further education, and that this is also the "politically dynamic section." This, he believes, will have a fundamental effect on the union's operation in the next few years.

"We've always regarded adult education as a 'Good Thing' but we haven't really developed an attitude towards it, and even now we are still grappling with that comprehensive post-school education, continuing and recurrent education is a big feature, and that inevitably means supporting concepts like the Open University and part-time study of all kinds because if you are looking for a mass system

of post-school education, it is going to be the important part of the majority of people."

On international affairs, too, NUS has adopted a more cautious approach. "I think the policy which we regarded as 'internationalism' which in my view was rather in advance of the level of consciousness or awareness of our membership in general."

Although many students are already identified with the Southern Africa campaign, "it wasn't really conducted at a level which interested a lot of our international contacts. It was operated at a kind of diplomatic level, which engendered a suspicion among students."

Now, the priority is to develop those aspects of internationalism which have domestic relevance, such as the exchange of information with other national unions on education systems. NUS still has its solidarity campaigns, notably South Africa and Palestine, but Phillips says "I think we've got to develop a dimension which is not just solidarity but looks at the concept of human rights in its broad sense."

The most important campaign of the union next year, "I think, is personal bias but I think it is politically correct" will be racialism.

If we can really create an attitude around the campaign, and bring into the activities of the union people who hitherto haven't been involved, then I think we are going in the right direction."

It is interesting, perhaps, to note that the changed attitudes on the part of the NUS leadership is reflected also in a new glossary of stock phrases. "Quite politically correct" is a favourite phrase of Phillips.

As yet he is still refusing to add to his candidature list should a "favourite" jump home at last, it could prove to be a challenge year ahead for him.

Kasper de Grad



The Technician and Business Education Councils, by Patricia Santinelli

Two part revolution of 1960s comes to fruition

In the late 1960s a revolution in further education was heralded by the recommendation in the Haslegrave report that two new councils should be set up to administer technician and business education. But only now, nearly a decade later, is the impact of the Technician and Business Education Councils beginning to be felt.

The TEC and the BEC were created in 1973 and 1974 respectively as a result of the 1969 report. The Haslegrave committee itself had been established two years before by the National Advisory Council in Education for Industry and Commerce with a brief to examine further education provision for intending technicians—workers in the grade between qualified scientists and engineers, skilled foremen and craftsmen—in industry.

Technician Education Council

Meeting needs of industry

The role of the Technician Education Council is to set standards, validate courses, award qualifications and generally promote the status of technician education and enhance its status. Its aim has been to create a more flexible and simplified range of technician courses eliminating unnecessary duplication without reducing the opportunities available to students or ignoring industry's needs.

At the heart of the TEC's courses are four qualifications—a certificate and higher certificate and diploma and higher diploma—each obtainable through study based on a unit credit system. Emphasizing flexibility, students are able to qualify through either full or part-time, day release or block release, sandwich or evening study. Special provision has been made for external students—the handicapped for instance—who cannot attend college regularly.

A cornerstone of the TEC's policy is to give students 18 upwards as much "credit" as possible for previous relevant study and attainment whether in school, college, training or employment. Minimum entry requirements to the lower level courses are CSE grade 3 in maths and science and no student can gain exemption from more than half the units in any programme.

The council itself is a registered limited company financed initially by a 100 per cent deficiency grant from the Department of Education and Science. In 1976 its budget was £325,000. Today it has reached £517,000, £400,000 of which has come from a deficiency grant and the remainder from student registration fees.

The council hopes to be self-supporting by 1980 entirely through student registration revenue. Last year 7,000 students were taking TEC courses but now there are an estimated 40,000, each paying a registration charge of £15 a year.

Gradually, then, the TEC will lose DES financial support. By 1980, when 200,000 students are expected to be studying for TEC qualifications, half of its income will accrue from its own students. By 1982 there will be 300,000 students in 500 colleges, bringing revenue up to an estimated £4.5m.

The majority of today's students are on the lower level certificate and diploma courses.

Since its inception the main task has been to devise and approve study programmes which are published to use from far and wide in colleges. The council operates through two key committees—education, and resources and organization—and three sector committees, A, B and C which cover, respectively, the three main disciplines with which technicians are broadly involved—engineering, construction and science. Under these are the 22 programme committees which cover individual subjects such as computer engineering, fuel technology, maritime studies and the life sciences.

Specialist panels have been appointed to advise them, often on peripheral subjects that do not actually fall in their own right to TEC awards. However, there is scope for the panels to develop into full programme committees if there is demand for an award in that particular subject. These panels cover, for instance, tribology, planning, costing and industrial relations.

Responsibility for the validation and co-ordination of art and design courses below degree level has also been given to TEC.

The role of the sector committees is essentially one of co-ordinating policy. They also produce guidelines on admission requirements, programme structures, and assessment for use by the colleges.

In addition to dealing with the production of standard units the programme committees validate, monitor and assess programmes produced by individual colleges or groups of colleges. So far 1,500 programmes have

been validated and 300 standard units produced. By 1982 5,000 programmes will have been validated.

The validation guidelines of the TEC require that every programme proposal has to be prefaced by a clear statement of its objectives, including the knowledge and skills which it aims to impart in students and the career to which it is related. Each scheme must include a syllabus and a proposed method of assessment.

The council has to be satisfied that the college has both the staff and resources needed to run the programme. It takes national and local needs into account and urges colleges to consult local industry, their own local education authority and other interested bodies. Validation approval is normally given for a five year period locally.

An element of general and communication studies, which can be assessed, must be included in college programmes either as a full unit of study or part of one. Overall, these compulsory studies should, maintains the TEC, form at least 15 per cent of any programme leading to a certificate or diploma.

Programmes are composed of compulsory units taken by all students, optional units selected by students but compulsory in a topic necessary to gain an award, and a third category of supplementary units to allow greater breadth or specialization.

A full unit represents approximately 60 to 75 hours of study and the council maintains that all programmes leading to the same awards should have the same number of units. This ensures a national currency and allows movement between programmes.

Until now students on City and Guild courses planning to enter higher education or take other qualifications have had problems in moving because of the great proliferation of schemes. The TEC system allows different units to lead to the same award. For example a student can take a certificate course in mechanical engineering through a very practical or more academic route.

The ordinary certificate programmes usually involve three years of day-release study or equivalent, an accumulation of 900 hours. Students have to gain 12 TEC units and the standard is equivalent to the former ONC awards. A lower level diploma involves two years of full-time study and students need 25 units. It has the same currency as the ONC, which is now being phased out.

The higher TEC certificates require another two years' day-release study and an accumulation of a further 600 units. To gain a higher diploma students take 16 units over a two-year period of full-time study. These qualifications are equivalent to the HNC and ONC awards.

An important aspect of the awards system that is central to TEC's existence is recognition from professional bodies, universities and polytechnics.

The financial studies board is



"The relationship between education and industrial training is complementary and the two areas should be brought together." . . . Francis Hanrott, chief officer of the Technician Education Council. NUS conference York University, January 1977.

National Committee for Certificates in Office Studies, each reconstituted as ad hoc committees of the BEC.

These awards included the ordinary and higher national certificate and diploma in business studies, the ordinary national certificate in public administration and the various certificate qualifications in distribution and office studies.

The existing technician courses superseded by the TEC's programmes were considered unsuitable by Haslegrave because they failed to take account of the changing nature and structure of industry. They had also ignored the impact of the Industrial Training Act of 1964 and the training boards on industry. Business education courses had been criticized for their lack of relevance and their academic content. A more vocational element was called for by Haslegrave.

Business Education Council

English skills the keynote

The Business Education Council is a registered limited company, too, but unlike the TEC it is already financially solvent in its own right. It draws its revenue solely from the registration fees of students. However its potential income is much smaller than the TEC's. In the financial year ending September 1977, its fee revenue was around £530,000. Until March, 1976, the council received a deficiency grant of £91,000 from the DES bringing its total income in that year to £400,000.

So far its income has been used to develop new courses and run the inherited programmes. But from this September only newly devised courses will be run, although arrangements will continue for those students still studying on the programmes being phased out.

The courses leading to BEC awards have been designed for those aiming at professional business qualifications and to provide knowledge and skills for those looking for careers in business and public administration. They are essentially vocational courses aimed at the needs of both students and employers but with a strong bias on English language skills and work experience. Every BEC course contains a "core" of compulsory interrelated modules designed to meet the objectives of the appropriate subject board of the council. These are primarily aimed at allowing students to transfer from one subject area to another with ease.

The BEC has decided that there are four areas of knowledge and understanding necessary right across the business world. These are a comprehension of people, money, the ability to speak and write clearly, simple English and familiarity with numbers and technology. Everyone gaining a BEC award at an intermediate level or above has to show in their assessment an understanding of these central themes.

The council is striving to achieve its aims through an organizational and research and a finance committee. Under the education committee are four boards responsible for designing and approving courses of study within particular subject areas.

The first—the business studies board—oversees courses of a non-specialized nature for students planning careers in a wide range of commercial, manufacturing or service organizations. The financial studies board is

generally, awards can be gained on either a part-time, full-time, day release, block release, sandwich or evening study basis. Direct private study and correspondence courses are under consideration by the council but have not yet been formalized.

The general certificate and diploma courses are devised by the board and the final written examination set and marked on behalf of the council. They require no specific academic entry qualifications and are similar in standard to the Certificate in Office Studies. By September 13,000 students are expected to be enrolled on those BEC courses of between 250 and 300 colleges.

The national awards have up to now been devised by the boards but it is expected that an increasing number of colleges will, during the next five years, wish to develop their own programmes. So far there are no official figures for these courses but a small number of colleges will be offering them in September and a much larger number will follow in 1979. They are equivalent to the ONC and OND awards in business studies.

At the higher level the board have provided broad guidelines on curricular for colleges to produce their own courses. They are equivalent to the HNC and HND but are, in time, expected to gain more exemption recognition in the education world than these awards.

For each course the BEC boards have defined a core or group of compulsory modules designed to cover the fundamental knowledge and skills. This core at all certificate levels will ensure that all certificate holders have a common base of knowledge and skills. The first-level diplomas the core accounts for three eighths and for the second and higher level diplomas half the course.

Guidelines on the proper conduct of assessment are issued by the council and in the case of colleges possessing their own programmes moderators are appointed.

Ultimately the BEC expects to have 50,000 new students enrolling a year. But there will still be room for expansion as there are 200,000 new entrants a year in the professions for which BEC prepares students.

History charts eighty years of technology at Chelsea College

A growing awareness that Britain's industrial supremacy depended on a sound system of technical education led to the founding of the Chelsea College of Art and Design in 1891. Sixty years later, a similar sense of the need to improve higher technological education prompted changes which led finally to the emergence of Chelsea College as a school of the University of London.

The lowly beginnings of the college, "a prompting of education for the poorer inhabitants of the Metropolis" and its efforts to win university status are charted in *Chelsea College—A History*, edited by Harold Silver and S. John Teague.

Publication of the history also marks another milestone step for the college, coinciding with the start of its move to a new site at Springfield in Wandsworth.

Demand for the creation of the South-Western and other London polytechnics stemmed from the reality that Germany and the United States of America were fast establishing a foothold in traditionally British markets. It was recognized that the foreign challenge was based, to some extent, on superior education—stability in the technical field. The most rapidly advancing nations were the best educated ones.

A member of the Royal Family, laying the foundation-stone of a technical college in 1881, summed it up: "We are beginning to realize that a thorough and liberal system of education must be placed within the reach of the British artisan in order to enable him to hold his own against foreign competition."

The founding of the South-Western was brought about by a campaign in 1880. The Charity Commissioners offered to donate £50,000 provided a similar sum was raised in the district.

The proposed polytechnic institute was to provide technical and commercial schooling and science over the next 15 years; recreation facilities including a gymnasium and lecture and reading rooms, odd day and evening instruction for pupils

aged 13 to 15, following their elementary school education. Fees were to range from one shilling to £6 per week.

The foundation stone of the college was laid in July, 1891, by Edward VII, the Prince of Wales, but because of difficulties in collecting the balance of the £50,000 being raised by public subscription the first classes did not begin until 1895.

At its first day sessions, the South-Western offered science and a variety of other technical, evening classes ranging from mathematics, natural sciences, and engineering to art and music. Recreational facilities included elocution and gymnastics.

From the outset Chelsea attracted the white-collar workers, rather than the "poorer classes" for whom it had been designed. This led to a commitment to more advanced levels of work, a point noted during the debate on the 1898 Bill to reform the University of London when R. B. Haldane reported "our technique is teaching the application of mathematics to electricity in a higher teaching of the university."

In London University degree examinations are recorded in the Institute's second annual report, and by 1907 there were 85 day internal London degree students.

Some doubt, still had to be convinced that forays into higher education fell within the legitimate remit of the South-Western and the other London polytechnics.

A Royal Commission on university education in London during the first decade of the twentieth century revealed a widely held view that, since universities catered for middle-class students, the role of the polytechnics was to support

Even the LCC's chief education officer felt universities were indispensable for making officers, and polytechnics were intended to cater for the rank and file. He did concede, however, that they

might produce "the most capable rank and file in the world."

The 1920s and 1930s witnessed a gradual strengthening of the traditions of high-level work, hampered mainly by financial restrictions which have a familiar ring about them today.

One change accomplished with ease was an alteration of title. In 1922 the South-Western became Chelsea Polytechnic. Though its name had been localized, the college was becoming increasingly more metropolitan in character.

Work in all but two of the polytechnic departments continued during the war, but post-war accommodation difficulties led to the establishment of the college of physical education at Eastbourne. From the end of the 1940s, in response to a continuous pressure to upgrade the college and to provide more space for science departments, courses which were seen as "non-university" began to be dropped.

In 1956, following representations from the governors, Chelsea was designated by the Minister of Education as one of eight colleges of advanced technology, and in 1959 the college's largest extension was opened.

The new wing did not solve accommodation problems, however, and a search was instituted for temporary premises in the locality. The situation did not improve, the governors, who emphasized the long-term need to provide a new home for the college on a single site.

After the Robbins Report of 1963, which recommended that the colleges of advanced technology should, in general, be designated as technological universities, the search for a single site began in earnest. A visit to Hertfordshire stimulated months of detailed discussions, but the projected dis-

The University Grants Committee had suggested to the Government that instead of becoming an independent university, Chelsea should



The main building of Chelsea College at Monro Road.

seek a link with the University of London. The Hertfordshire proposals had been turned down, and the college could still develop on and near its existing site as an independent university.

Talks between college representatives and the UGC led to agreement that both suggestions should be considered, but a subsequent mission for independent status at a 12-acre site in Fulham was rejected by the UGC.

Despite a report from the college's academic advisory committee that the academic plans could best be achieved by independent status, the governors reluctantly came to the conclusion that the college could

not successfully petition for independence. While retaining their belief that the college could best realize its academic plan by becoming an independent university, they agreed to enter into further discussions with the University of London on the possible acceptance of the college as an independent school of the University of London.

On December 22, 1971, in a Royal Charter granted by the Queen, Chelsea College was formally established as a school of the University of London.

Chelsea College—A History, edited by Harold Silver and S. John Teague, and published by Chelsea College, University of London. £3.50

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BOOKS

The gaps in industrial study

The Sociology of Industry by S. R. Parker, R. K. Brown, J. Child and M. A. Smith. Allen and Unwin, £6.50 and £2.95. ISBN 0 04 301082 2 and 301083 0

The Personnel Managers: A Study in the Sociology of Work and Employment by Tony J. Watson. Routledge and Kegan Paul, £5.95. ISBN 0 7100 8743 8

Textbooks in the social sciences could be argued to fall into three main categories. There are firstly analytical texts, which provide a framework, usually within a particular discipline. Then there are descriptive and discussion of particular institutions, sets of behaviour and the logic of action found in a particular area. Such as social administration or industrial relations, usually in a single society. Finally, there are books which discuss and summarize a set of intellectual debates on the issues which have attracted attention within a given area or sub-discipline.

The Sociology of Industry by Parker et al falls unambiguously into the third category. Industrial sociology, we are told, is "an important and fascinating subject". There are many basic questions raised by contemporary society, questions which have rival and competing answers. It is radical in the sense that "the stance is the radical one of critical rationalism". This means that industrial sociology has to be pluralist enough to deal systematically with the macro theories of structure and function and micro theories of the subjective experience of work at the individual level, as well as with the interaction between these within work organizations. The authors claim "the text holds no brief for capitalist or Marxist economics".

It is not clear how the authors can adequately serve as an instrument of political and social criticism, unless there is a "comparison of work activity and experiences in capitalist and non-capitalist societies". In spite of a number of American and European references added in this third edition, there is no pretence in this text of having ever attempted such a task.

The result is a textbook which is practical and useful in its bibliographical approach; which achieves considerable clarity in the classification of issues and view points, but which ultimately is frustratingly depressing. The depressing came from the accuracy with which the authors depict the world of industrial sociology in Britain over the past two decades. An image is created of a "subject" where there is such disagreement about the questions which should be achieved by adopting a set of boxes for each set of questions. Students' use of these categories, boxes and conceptual labels for examination is only too clear.

Tony Watson's stimulating study of The Personnel Managers fits the perspective of The Sociology of Industry to a remarkable degree. It also claims to be "radical" and "critical" in that it attempts to go to the roots of the phenomenon under investigation (the growth of the occupation of personnel management in Britain) back by using the approach of "reflexive sociology" to uncover the ideas and assumptions he is making about society and by analysing the activities and experiences of personnel managers, "in the context of a particular society".

He borrows from the ethnographic tradition the notion of "account" to describe the views of the 100 personnel managers interviewed, views which are not taken at face value but are seen in terms of the interests of those making them. This enables him to concentrate on values and ideology expressed in the interviews and to emphasize the conflict experienced between the managerial role operated under the logic of market conditions and the professional ideology of social science and particularly industrial sociological thinking. Watson states that this

sample of personnel managers is a very much enlarged by Colin Bell and Howard Beckett's questionnaires. These questionnaires, £6.50 and £2.95. ISBN 0 04 300070 3 and 300071 1

He has to appear as a dilettante in the search of advice from doing research have often part of their team. The authors of a manual approach to the field. Mean while, critical colleagues have suggested that common sense, method, social science, and the essential for this evidence, however, researchers gained very little from his advice as it failed to provide a realistic account of the research process. There has, therefore, been a call for sociologists to produce a guide which would guide young researchers along the paths in their data.

It is with this in mind that Colin Bell and Howard Beckett have produced a group of sociologists in a situation in which they have given obviously heavily did their research. However, the reader should remember that what is needed is a guide to the strategies of the research process, not the details of the research project. The details of the research project have been commissioned from the directors, supervisors or colleagues of these sociologists. The research story would inevitably be told in a different way.

These perhaps is the most of British industry over the last two decades. Bell tells us that the idea of this subject is defined by text partly arise from his experience. He then tells us that the idea of this subject is defined by text partly arise from his experience. He then tells us that the idea of this subject is defined by text partly arise from his experience.

Researchers come clean

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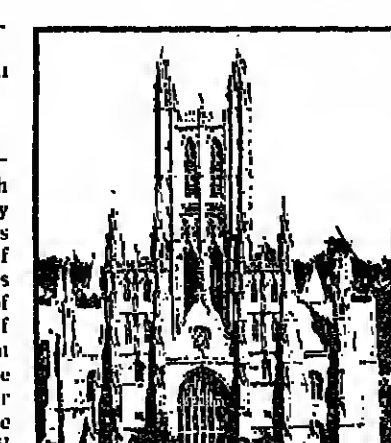
Reform and be damned

Clergy, Ministers and Priests by Stewart Ranson, Alan Bryman, Bob Hinings and Alan Bryman. Routledge and Kegan Paul, £5.95. ISBN 0 7100 8713 6

In the nineteenth century British newspapers and journals frequently carried headlines about proposals for church reform, the crises of organized religion, and the failures and scandals of various aspects of church organization. Thousands of these subjects languish on the shelves of the Bodleian and other libraries, unvisited except by the occasional historian or sociologist who is persuaded that the issues of the past recur in the present in new guises.

The churches have moved from centre stage to a shadowy existence on the wings, and the spotlight now focuses on educational and other institutions of the welfare state. These endure deeply held values and ideological tendencies, and yet are constantly criticized for inefficiency, when they attempt to adopt more efficient structures, for sacrificing aspects of organization that had come to symbolize far more than was suspected. The criteria employed for judging organizational efficiency and those necessary to comprehend symbolic appropriateness seldom coincide. The first lesson of church reform history is that you are damned if you do not reform and damned if you do.

It is a pity that Ranson, Bryman and Hinings did not include this longer term historical perspective in their otherwise excellent study of clergy (Anglican, ministerial, Methodist) and priests (Roman Catholic) attitudes towards their organizations. As it stands, the authors begin their book by stating that clerics have been a neglected topic of study in Britain, and that this is surprising in view of the fact that they are a group in crisis, held in tension between conservative and radical forces. What they neglect to discuss is the long history of this crisis, and the repetitive nature of the proposals and disagreements concerning reform. The reforms that have been made were usually in a series of logical steps, a response to financial, manpower



and administrative pressures. They had obvious justifications in terms of clerical efficiency, but they were bitterly opposed at the time on the grounds of symbolic inappropriateness. Usually they were accepted after some imaginative juggling with the symbols.

The survey reported in this book is certainly the most comprehensive and thorough that has been carried out on English clergymen. The majority of clergy in all three churches were in favour of reform in principle, the Anglicans feeling most in need of it and the Roman Catholics least. But when it came down to specific proposals to reform the negative vote turned into a minority whenever the issue affected professional interests. To take one example, Church of England clergy were in favour of reemployment of their clerics rapidly diminishing professional manpower, but were not in favour of reform of the person's freedom, which all schemes for reform have put down as first priority. The authors point out that there is a recurrent discrepancy between general and particular beliefs on such organizational matters. Even a theological party such as Evangelicals, who take a radical and favourable stance towards the general need for reform, turn out to be quite conservative on these specific reform issues.

It is suggested as an explanation of this bifurcation of general and specific beliefs that aspects of organization like the freedom of body certain general symbolic overtones—freedom, security—which constitute "collective repre-

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A woman's right

Illegitimacy, Sexuality and the Status of Women
by Derek Gill
Blackwell, £11.50
ISBN 0 631 17020 0

Illegitimacy is often regarded as a sign of social disorder and certainly tends to increase in times of crisis and social upheaval. The peaks in illegitimacy that occurred in this country during both world wars do not, therefore, provide a difficult explanatory problem. In contrast the marked increases in illegitimacy in England and Wales and, more dramatically in Scotland since the late 1950s raise more interesting and significant questions, especially since they have continued long beyond the overall increase in births which they initially appeared to be associated. It is to the task of explaining these increases, which have been particularly apparent among the young, those living in urban areas and the higher social classes, that Gill's study is primarily directed.

His research is based on an analysis of data from a wide range of sources, both contemporary and historical, and uses a variety of methods. It benefits from the detailed records and research that is available for Aberdeen, as well as from data specifically collected by the author.

Gill argues that the increases in illegitimacy reflect fundamental changes in sexual mores and sexual behaviour which have occurred over the last two decades, and which have involved changes in the position of women in the society and changes in the institutions of marriage and the family. He believes that these changes, which are inter-related, are largely the consequence of the increasing control that now exists over fertility. This has resulted not only in smaller families but also has permitted the dissociation of sex from reproduction. Hence, the greater use of contraception which might have been expected to reduce illegitimacy has, by producing ideological change, actually increased it. It has liberated women both sexually and sexually relations both within and outside marriage and has loosened the stigma of illegitimacy. It has not, as yet, produced widespread use of contraception by young people before marriage. Illegitimacy by choice rather than from contingency is now more likely.

Unfortunately the foot that the study draws heavily on data from Aberdeen is a disadvantage here. First, since its geographic location is hardly likely to be in the vanguard of social and cultural change in patterns of marriage and childbearing; second, because Scotland in general has a rather different cultural configuration from the remainder of the United Kingdom.

If increases in illegitimacy are the consequence of changing values and beliefs this does not mean that it is no longer a problem. Gill, therefore, attempts both to assess its consequences for mother and child and to make specific policy suggestions. Overall his data reinforces the conclusions of others that much of the apparent disadvantage of illegitimacy is a function of social position (overall illegitimacy is higher among those of lower social class) and that the essential problem is that of poverty. Hence it is directed, his notes too that, predictably, it is women from the upper socio-economic groups who have been most successful in obtaining legal abortion and have benefited most from Abortion Law reform.

Of course, Gill's explanation and arguments present some problems and much of what he says is inevitably informed speculation and highly controversial. Nor is the detail and structure of his arguments always as clear as it might be. Nevertheless, changes to social and cultural ones is a challenging endeavour, and, I hope, encourage further research.

Joan Busfield

BOOKS

Conflicting clues

Beyond the Sociology of Conflict
by David Blau
Macmillan £10 and £3.95
ISBN 0 333 21578 8 and 21598 2

It is a somewhat irritating fashion among sociological authors in claim to go beyond what they are studying. We have had the opportunity to go beyond an many sociologies in a book called simply *Beyond Sociology* might be timely.

But apart from its unenlightening title, this book makes a useful contribution to the literature on sociological theory. Taking Max Weber's conceptions of capitalism and class structure as his starting point, Blau examines the works of a number of significant twentieth-century sociological writers who have been heavily influenced by Weber. These include not only the ubiquitous Talcott Parsons, but also writers such as Anthony Giddens, John Rex, Ralf Dahrendorf, and C. Wright Mills, all of whom have generated substantive controversies, but who have been subjects of the sort of sustained critical theoretical analysis given by Blau. The main focus of his critique is the analysis of Western capitalism by these writers and the divergence of their approaches from Marx.

At present there is their tendency to analyse class and conflict in terms of market relations, the distribution of rewards and the rational stratification rather than in terms of relations of production. The book is very well written. It is clear, incisive and perceptive, and is most interesting to read. It will be valuable to advanced sociology students, though its approach to the sociological theory. Not all the points made are convincing. For instance, would know the meaning of 'manipulative' in the Marxian sense (p. 75).

One of the best features of the book is the way in which Blau relates sociological theory to philosophical underpinnings, and this is particularly well done in his discussions of C. Wright Mills and Ralf Dahrendorf. Mills's major

works such as *The Power Elite* are related to his philosophical pragmatism, and his theories of class and society are related to his liberal neo-Kantianism. For these and other writers discussed, influence of Max Weber is made explicit.

In his preface, Blau, and not "offer a full elaboration of an alternative approach to the question". Unfortunately, this approach, a Marxist one, is not made explicit, let alone elaborated and this represents a most serious weakness. Mills, Dahrendorf, and other writers are seen at points to misunderstand and misinterpret Marx, but Blau is self open to the charge of the quotation of Marx just as much as he levels it at others. Some of the more serious concerns, how faithful sociologists are to their own theories, and how they represent a clear direction of sociology of conflict, we are left with what it should be for well-veiled clues.

From the recurring criticism those who reject the radical revolutionary potential of the class, it would seem that is a fairly orthodox Marxist accepts it. His view of capitalism seems to be bound to the state: his only empirical reference to the internal workings of Western capitalism (mainly the USA) is by avoiding any form of analysis as a world of class struggle. He refers to the fact that Marxists who have put this, is dismissed as the possibility of the Western working class being beneficiaries rather than victims of exploitation. Reference to imperialism is scanty, and to Third World non-existent. The Marx and Weberian have been in equate rationality with capitalism, but his own approach seems to be no less ethnocentric.

David Be

This week's reviewers

Michael Banton is professor of sociology at Bristol University. His latest book is *The Idea of Race*. David Perry is author of *Central Ideas in Sociology*. Robert Burgess is lecturer in sociology at Warwick University. John Armstrong is lecturer in sociology of Essex University and author of *Thinking about Children*. Simon Cohen is professor of sociology at Essex University. Heryle Ferguson is in the department of sociology at Glasgow University.

Keith Thurling is senior lecturer in industrial sociology at the School of Economics, the University of Supervision: a Registrar. Laurie Taylor is professor of sociology at York University.

Surveying Victims

by R. F. Spear, School of Criminal Justice, Rutgers University; Hazel O. Best, Centre for Social-Legal Studies, Welles College, Oxford; and D. A. Best, University of Guyana.
This book describes a new method of criminological research, the survey of victims, which makes it possible to measure the "dark figure" of crime not recorded in police statistics.
1977 256 pp. November 1977 £12.00/\$22.00

Women and Achievement

Social and Motivational Analysis
edited by Martha Shuch Madnick, Sandra Schwartz Tangari, and Lois Winslow Holcomb
These theoretical and empirical papers point to a sophisticated analysis of the problems created by the status of women and of the failure of the social sciences to deal with those problems.
1976 218 pp. 448 pages November 1977 £8.50/\$15.00 (paper only)
Published by Nemepe Press Publications Co., and distributed by John Wiley & Sons Ltd.

Law Enforcement and the Youthful Offender 3rd Ed.

by E. E. Eassey, De Anza and West Valley Colleges and Santa Clara County Juvenile Probation Department.
This discussion of the administration of juvenile justice, and provides an overview of juvenile crime law, criminological theory and practice, police work with the youth offender, and latest concerns of juvenile corrections.
1977 224 pp. approx. 400 pages In Press approx. £3.95/\$10.00

Research Methods for Counsellors

Practical Approaches in Field Settings
edited by L. G. Giddens, City University of New York.
This introductory applied research methods for each major specialty area, including child, school, rehabilitation, employment and vocational counselling, and community counselling. Emphasis is laid on practical research methods which can be used in counselling and human development research. Wiley Series
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Colleges of Further Education

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Research Posts
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Overseas
Adult Education
Librarians
General Vacancies

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